No. 79-1941

IN THE

Supreme Court of the United States

OCTOBER TERM, 1979

SIDNEY A. DIAMOND, COMMISSIONER OF PATENTS AND TRADEMARKS, *Petitioner*

v.

JOHN W. C. SHERWOOD

REPLY TO PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF CUSTOMS AND PATENT APPEALS

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Respondent does not oppose the grant of a writ of certiorari and, in fact, urges this Court to grant the petition and consolidate this case for consideration and argument with *Diamond* v. *Diehr and Diamond* v. *Bradley* in which writs of certiorari have been granted.[1]

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[1] *Diamond* v. *Diehr*, No. 79-1112 and *Diamond* v. *Bradley*, No. 79-855.

QUESTION PRESENTED

The question framed by the petitioner is not actually presented by the facts of this case. The question presented is simply this:

Whether a new combination of machine implemented steps to produce a product that is used in the art of geophysical prospecting and has qualities never present before is unpatentable subject matter under 35 U.S.C. § 101 by reason of the nature of the means (a computer) used to implement the invention.

STATEMENT

The petitioner's statement is misleading in two important respects.

First, Dr. Sherwood did not merely devise a method for converting data from one form to another (Petition, p. 3). He is involved in locating oil and gas deposits and his invention relates specifically to this endeavor. The method he devised was to transform one physical thing into an infinitely more useful physical thing as the United States Court of Customs and Patent Appeals (CCPA) quite correctly stated (Petition, App. A, 20a). The inventor started with geophone signals representing reflections of seismic waves from underground formations in a form that provided little information to the true locations and contours of the underground formations from which the seismic waves were reflected. He discovered a way to transform these signals into a new form that was completely different from the starting signals and provided a really useful picture of the actual formations below the surface of the earth. Some formulas are applicable to this transformation process but they are simple, algebraic, ex-

pressions used to represent the physical events that occur when seismic waves are reflected from a layer beneath the ground.[2] The claims in the patent application do not preempt or prevent anyone from using these expressions just as the claims in a patent on a weighing scale do not preempt the algebraic expression of the law of gravity.

Second, petitioner states that the CCPA "did not overturn the Board's and examiner's finding that the only novel feature of the invention was the algorithm." (Petition, 6). The CCPA never addressed this issue and a glance at the petitioner's brief submitted to the CCPA shows why. The petitioner never raised the issue stated.

REASONS FOR GRANTING THE PETITION AND DENYING PETITIONER'S REQUEST TO HOLD

This case was decided on January 10, 1980 and the time for filing a petition for a writ of certiorari was extended until the day the briefs were filed in *Diehr* and *Bradley*.

The petitioner's procedural tactics have successfully placed this case far enough behind the briefing and argument schedule in the *Diehr* and *Bradley* cases to give a color of reason to its request that the Court hold the petition for writ of certiorari pending the

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[2] For example, seismic waves are reflected from a formation in various directions and therefore are received by a geophone at various angles (i.e. the reflected waves are received not only from locations directly beneath the geophone but also from locations off to the sides of the geophones). This can be represented by geometrical equations involving the angle of reception and trigonometric functions such as the sine of the angle (see, e.g. Petition, App. D, 52a).

outcome of those cases. However, there are incredible inconsistencies between the question presented by the petition and the real question which must be addressed by the Court in this case. The real question has nothing to do with the patentability of computer programs and to so state is particularly misleading in this case. To demonstrate why, one need not look far. The Patent Examiner, after having examined the Sherwood patent application for a second time, stated that:

> "Applicant has failed to disclose any computer hardware, flow charts, algorithms or programs with which his best mode would operate" (Petition, App. D, 36a).

This statement was made to support a ground for rejection based upon 35 U.S.C. § 112, a rejection reversed by the Court of Customs and Patent Appeals and not raised here (Petition, p. 4, footnote 3). Yet the petition presents the question "Whether a *computer program* used in making a subsurface map useful in geophysical prospecting is patentable subject matter under 35 U.S.C. § 101." (Petition, 2, emphasis added).

It is not surprising that Sherwood's patent application did not contain a computer program, for he did not invent a computer program. What he did was devise a means by which geophysicists could find out the configurations and locations of underground formations before recommending the drilling of a several million dollar oil well. He found a way by which the underground formations could be revealed more nearly as they exist rather than as an artificial and often misleading display of what a group of geophones "saw" after an explosion was detonated.

It is said this case is like Diehr because in both cases the "only novelty resided in a computer-implemented algorithm employing a known mathematical formula" and in both cases "the Board properly applied the test laid down in Parker v. Flook" (Petition, 7). Yet in its brief in *Diehr,* petitioner states that Diehr's only inventive contribution "is in actually programming the computer to control the already-known rubber molding process." (Pet. Brief, 10). No such claim is made in this case; nor can such a claim be made. If the only "inventive contribution" was a computer program, then the proper action would have been to reject the patent application for improper inventorship since Sherwood admittedly did not take part in "actually programming a computer".

Comparing the questions presented by the petitioner in *Bradley, Diehr* and *Sherwood* reveals the different light in which even the petitioner views these cases. All the questions are unfairly characterized as involving the common issue of patentability of computer programs but, more importantly, it is only in *Sherwood* that a product is produced. In both *Bradley* and *Diehr* the supposed computer program "regulates"[3] an oper-

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[3] The questions presented by the petitioner in *Bradley* and *Diehr* are, respectively:

> "Whether a computer program that regulates the internal operation of a computer is patentable subject matter under 35 U.S.C. § 101"

> "Whether a computer program that regulates the curing time of rubber products in a mold is patentable subject matter under 35 U.S.C. § 101"

ation. In *Bradley* it is the internal operation of a computer that is regulated; in *Diehr* it is the curing time of rubber products in a mold. In *Sherwood* the supposed computer program is "used in making a subsurface map useful in geophysical prospecting" (Petition, 2). The respondents in each of these three cases likewise present different questions as evidenced by the counterstatements of the questions.

If, as the petitioner urges, the decision sought in *Diehr* and *Bradley* is to be so far-reaching as to encompass the very different questions presented by *Sherwood* and, potentially the entire field of geophysical prospecting, this Court should have the benefit of full exposure to this case and should not be shielded from it. The present case should be considered with *Diehr* and *Bradley* in the October 1980 term so that the full implications of what petitioner is requesting can be considered.

Respectfully submitted,

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